

[0022] FIG. 11A is a diagram showing the structure of the acrylic plate retention member and FIG. 11B is a diagram showing the structure of the acrylic plate;

[0023] FIG. 12 is a block diagram showing the hardware structure of the control unit of the shooting video game machine pertaining to the first embodiment;

[0024] FIG. 13 is a flowchart showing the procedure for the shooting video game processing executed with the game control unit (CPU);

[0025] FIG. 14 is a block diagram showing the structure of the principal parts of the game processing unit for performing the processing with the game processing main body;

[0026] FIG. 15 is a flowchart showing the detailed procedure of the processing with the game processing main body;

[0027] FIG. 16 is the first diagram for explaining the detection of the player's position on the play area with the player detection sensor;

[0028] FIG. 17 is the second diagram for explaining the detection of the player's position on the play area with the player detection sensor;

[0029] FIG. 18 is a block diagram showing the structure of the principal parts of the muzzle direction detection unit for performing the muzzle direction detection processing at ST81;

[0030] FIG. 19 is a flowchart showing the detailed procedure of the muzzle direction detection processing at ST81;

[0031] FIG. 20 is a diagram showing the detailed subroutine of ST815;

[0032] FIG. 21 is a block diagram showing the structure of the principal parts of the image processing unit for performing the image display processing at ST99;

[0033] FIG. 22 is a flowchart showing the detailed procedure of the image display processing at ST99;

[0034] FIG. 23 is a diagram for explaining the rotation control of the mirrors corresponding respectively to the two areas in which one stage is divided with the first modified example of the shooting video game machine;

[0035] FIG. 24 is a diagram for explaining the detection of the player's position with the player detection sensor with the second modified example of the shooting video game machine;

[0036] FIG. 25 is the overall perspective view for explaining the video game device, which is a modified mode of the shooting video game machine pertaining to the first embodiment;

[0037] FIG. 26 is a front view of the controller simulating a tennis racket;

[0038] FIG. 27 is a block diagram of the video game device;

[0039] FIG. 28 is a structural diagram of the controller in which the shape of the marker is of a reverse T shape;

[0040] FIGS. 29A, 29B and 29C are structural diagrams of the controller in a case where the video game device is to

be used for a table tennis game, and FIG. 29A is the front view, FIG. 29B is the side view, and FIG. 29C is the rear view;

[0041] FIG. 30 is a diagram showing the appearance of the shooting video game machine pertaining to the second embodiment;

[0042] FIG. 31 is a typical cross section for explaining the shifting of the projected image on the screen;

[0043] FIG. 32 is a diagram showing the structure of the gun unit;

[0044] FIGS. 33A and 33B are diagrams showing the marker arrangement for detecting the muzzle direction with respect to the screen together with the CCD camera in the gun unit;

[0045] FIG. 34A is a diagram showing the form of markers, and FIGS. 34B and 34C represent the mounting structure to the screen;

[0046] FIG. 35 is a block diagram showing the hardware structure of the control unit of the shooting video game machine pertaining to the second embodiment;

[0047] FIG. 36 is a flowchart showing the procedure for the shooting video game processing executed with the game control unit (CPU);

[0048] FIG. 37 is a block diagram showing the structure of the principal parts of the game processing unit for performing the processing with the game processing main body;

[0049] FIG. 38 is a flowchart showing the detailed procedure of the processing with the game processing main body;

[0050] FIG. 39 is the first diagram for explaining the detection of the player's position on the play area with the player detection sensor;

[0051] FIG. 40 is the second diagram for explaining the detection of the player's position on the play area with the player detection sensor;

[0052] FIG. 41 is a block diagram showing the structure of the principal parts of the marker light-up processing unit for performing the marker light-up processing at ST280;

[0053] FIG. 42 is a block diagram showing the structure of the principal parts of the muzzle direction detection unit for performing the muzzle direction detection processing at ST281;

[0054] FIG. 43 is a flowchart showing the detailed procedure of the muzzle direction detection processing at ST281;

[0055] FIG. 44 is a diagram showing the detailed subroutine of ST2815;

[0056] FIG. 45 is a block diagram showing the structure of the principal parts of the image processing unit for performing the image display processing at ST299;

[0057] FIG. 46 is a flowchart showing the detailed procedure of the image display processing at ST299;